

METRO WATER SERVICES - NASHVILLE, TN
 APPROVED FOR CONSTRUCTION

UNDER AUTHORITY DELEGATED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION DIVISION OF WATER RESOURCES, THIS DOCUMENT HAS BEEN REVIEWED BY THE DEPARTMENT OF WATER AND SEWERAGE SERVICES OR CONTRACTED PROFESSIONAL AND IS HEREBY APPROVED FOR CONSTRUCTION. THIS APPROVAL SHALL NOT BE CONSTRUED AS AN ASSURANCE THAT THE IMPROVEMENTS DEPICTED IN THE DOCUMENT BEARING THIS STAMP WILL FUNCTION AS INTENDED.

Public Sewer: 23SL0008
 Public Water: N/A

MWS Engineer: EVAN LAW, PE
 Date: 05/18/2023

APPROVAL EXPIRES ONE YEAR FROM THE DATE ABOVE

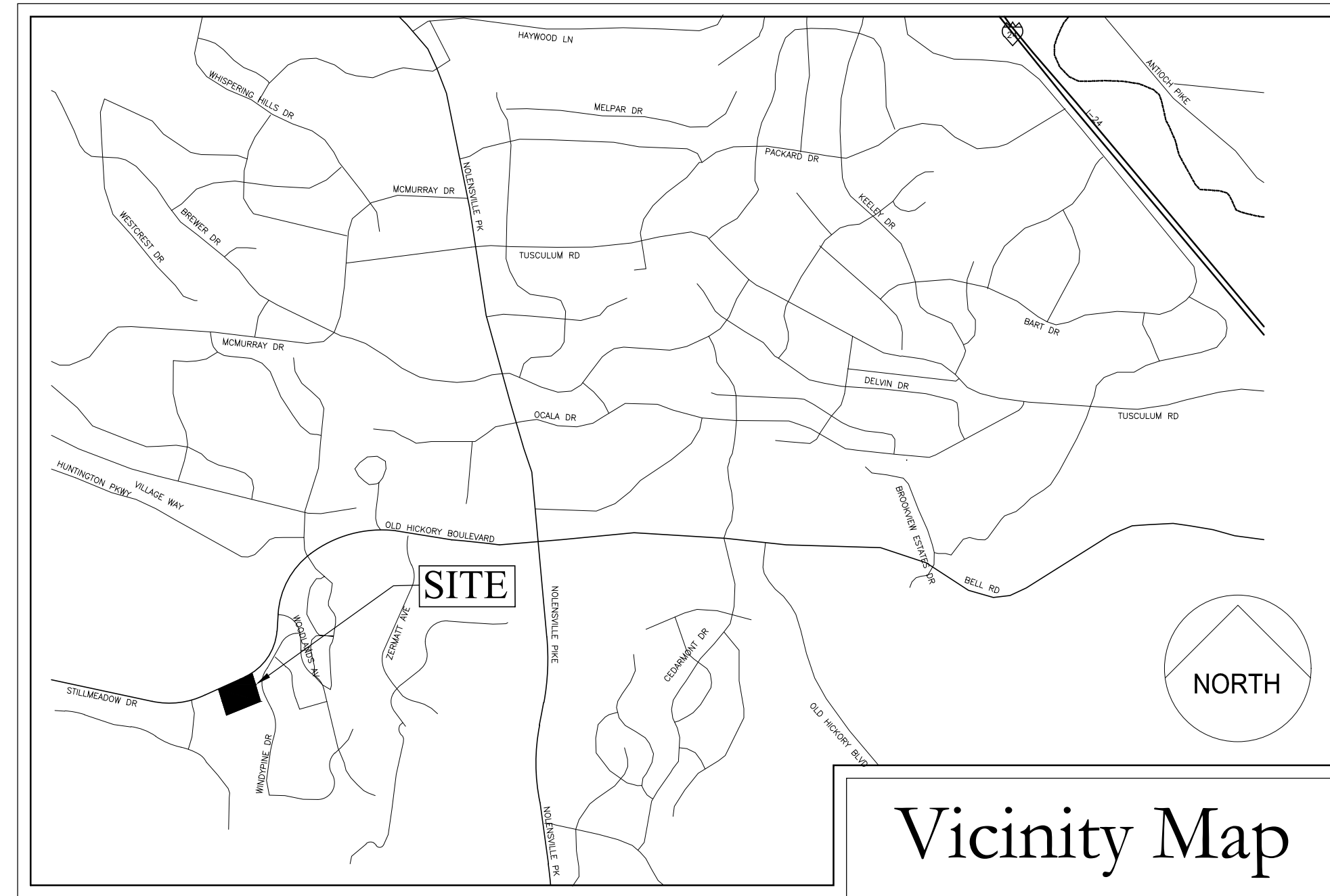
Development Plans

0 Old Hickory Boulevard

Map 161, Parcel 90-07
 Nashville, Davidson Co., Tennessee
 Case No. 2022S-151-002

General Development Plan Notes

- The purpose of this Development Plan is to create 5 lots.
- The base zoning district is R15.
- All lots to be served by public water and sewer. Individual water and/or sanitary sewer service lines are required for each lot.
- Any excavation, fill or disturbance of the existing ground elevation must be done in accordance with Storm Water Management Ordinance no. 78-840 and approved by the Metropolitan Department of Water Services.
- This property does not lie in a flood hazard zone as identified by FEMA Maps 47037C0386H April 5, 2017.
- All public sidewalks are to be constructed in conformance with Metro Public Works' sidewalk design standards.
- Wheelchair accessible curb ramps, complying with applicable Metro Public Works standards, shall be constructed at street crossings.
- The required fire flow shall be determined by the Metropolitan Fire Marshal's office, prior to the issuance of a building permit. Fire hydrants shall be in service before any combustible material is brought on site.
- No part of any building shall be more than 500 feet from a fire hydrant via an approved hard surfaced road. Metro Ordinance 095-1541 Section 1568.020 B.
- Size driveway culverts per the design criteria set forth by the Metro Stormwater Manual. (Minimum driveway culvert in Metro R.O.W. is 18" RCP).
- Metro Water Services shall be provided sufficient and unencumbered ingress and egress at all times in order to maintain, repair, replace, and inspect any stormwater facilities within the property.
- No building permit may be issued on any lot until street name signs are installed and verified by the Metropolitan Department of Public Works on all streets on which the lot depends for access.
- Solid waste pickup to be provided via individual roll-away containers. Plan & pickup to be coordinated with the Metro Public Works Solid Waste Department.
- All work within the public right-of-way shall require a permit from the Department of Public Works.
- Provide the full water quality treatment of 80% T_v. Various quantity/quality GIPS shall be utilized.
- All setbacks shall be per Metro Zoning Code.
- Prior to the issuance of any building permit for a lot designed as a critical lot on this plan, a grading plan know as a 'critical lot plan,' must be submitted to the Metro Planning Department as required by Appendix C of the Metro Subdivision Regulations. The critical lot plan will be evaluated for consistency with the regulations, including, but not limited to, the degree to which grading is minimized to preserve the natural features of the lot and the amount of cut/fill required to prepare the lot for construction. It is emphasized that a typical house design may not be suitable for a critical lot.
- All utilities shall be placed underground as required by Section 17.28.103 of the Metro Zoning Code.
- This parcel is located within the Airport Overlay District.
- The development of this project shall comply with the requirements of the adopted tree ordinance 2008-328 (Metro Code Chapter 17.24, Article II, Tree Protection and Replacement; and Chapter 17.40, Article X, Tree Protection and Replacement Procedures).
- The final site plan/building permit site plan shall depict the required public sidewalks, any required grass strip or frontage zone and the location of all existing and proposed vertical obstructions within the required sidewalk and grass strip or frontage zone. Prior to the issuance of use and occupancy permits, existing vertical obstructions shall be relocated outside of the required sidewalk. Vertical obstructions are only permitted within the required grass strip or frontage zone.



Vicinity Map

SHEET SCHEDULE

- C0.0 Project Notes and Standards
- C1.0 Existing Conditions Plan
- C2.0 Site Layout Plan
- C3.0 Initial Erosion Control Plan
- C3.1 Intermediate & Final Erosion Control Plan
- C4.0 Grading and Drainage Plan
- C4.1 Storm Water Details
- C5.0 Public Sewer Plan
- C5.1 Public Sewer Plan & Profile

Site Details:

Area:	2.50 Acres
Current Use:	Residential
Proposed Use:	Residential
Property Zoning:	R15
Surrounding Zoning:	R15, RM6

Site Criteria: Required

Lot Size:	Min. 15,000 sf
Maximum Building Coverage:	Max 35%
Street Setbacks:	Per Metro Zoning Code
Side Yard:	5' Side Setbacks / 15' Side Setback Along Eastern Windypine Dr.
Rear Yard:	80.4' Minimum Rear Setback
Height Standards:	Max 3 stories

Parking: Required

Required parking:	Single Family: 2 Stalls per Lot
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Access to Windypine Drive:

Access drives allowed:	1 - Access Easement off Old Hickory Boulevard
Access drives proposed:	1 - Access Easement off Old Hickory Boulevard

Property Information
 Tax Map 151, Parcel 90-07
 Old Hickory Boulevard (Unnumbered)
 Nashville, Tennessee 37211
 2.50 Acres (2.22 Acres Disturbed)
 Council District 04: Robert Swope

Property Owner
 Alemayehu Tesfaye
 860 Dover Glen Drive
 Antioch, Tennessee 37013

Civil Engineer
 Dale & Associates
 516 Heather Place
 Nashville, Tennessee 37204
 Contact: Michael Garrigan, PE
 Phone: 615.297.5166
 Email: michael@daleandassociates.net

Surveyor
 Dale & Associates
 516 Heather Place
 Nashville, Tennessee 37204
 Contact: Steven Matthews, RLS
 Phone: 615.297.5166
 Email: Steve@daleandassociates.net

Flood Note
 This property is not located within a Flood Hazard Area as depicted on the current Flood Insurance Rate Map (FIRM) Number 47037C0386H dated April 5, 2017.

Site Benchmark
 Spike set in Utility Pole located along Site Frontage. NAVD 88 Elevation 739.19

Adjacent Hydrant Test

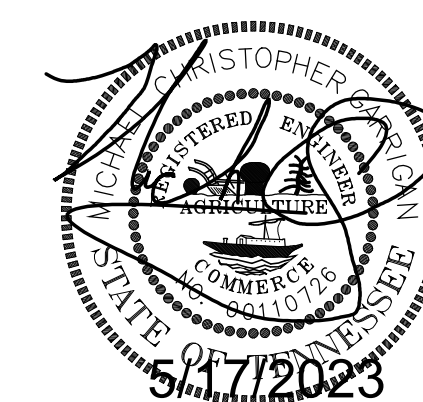
Existing hydrants, tag bolt numbers XXXXX & XXXXX along Old Hickory Pike and Brick Drive were flow tested on 5/18/23 by Metro Water Services. Below is a summary of the flow results.

Static Pressure:	XX psi
Residual Pressure:	XX psi
Flow:	XXXX gpm
Flow @ 20 psi:	XXXX gpm

Based on table H.5.1 of the current NFPA, the existing hydrant will not require a fire suppression system.

Forthcoming

PERMITS:
 Case No. 2022S-151-002
 SWGR 2023000749
 MWS 23-SL-0008 (2023001753)




Dale & Associates
 Civil Engineering & Surveying
 516 Heather Place
 Nashville, TN 37204
 (615) 297-5166


D&A Project #20162
 0 Old Hickory Boulevard
C0.0

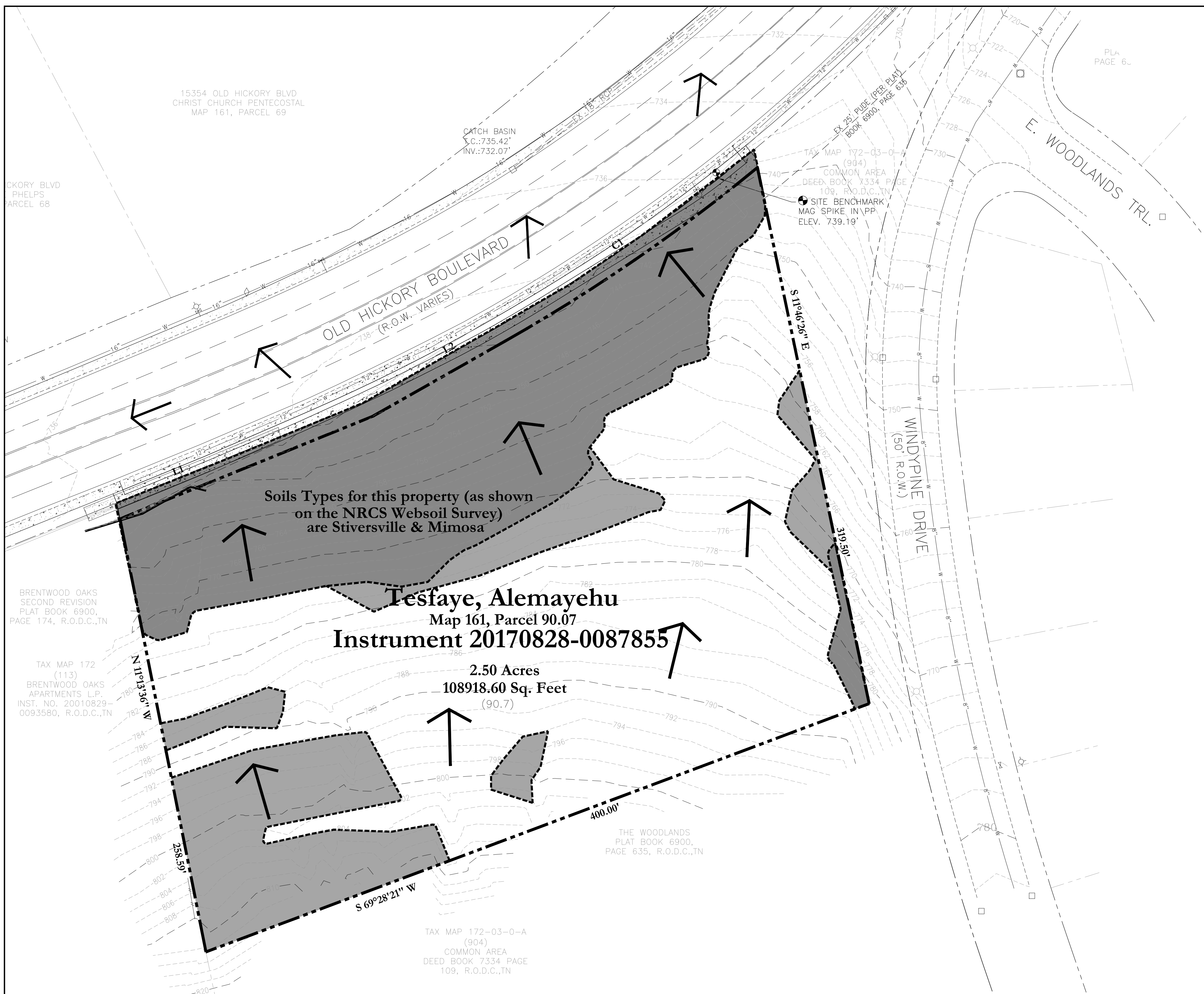
Drawing Date:
December 2022

Revisions

SLOPES:

 = REPRESENTS SLOPES 20 - 25%

 = REPRESENTS SLOPES 25% OR GREATER



Soils Types for this property (as shown on the NRCS Websoil Survey) are Stiversville & Mimosa

Tesfaye, Alemayehu
Map 161, Parcel 90.07
Instrument 20170828-0087855

2.50 Acres
108918.60 Sq. Feet
(90.7)

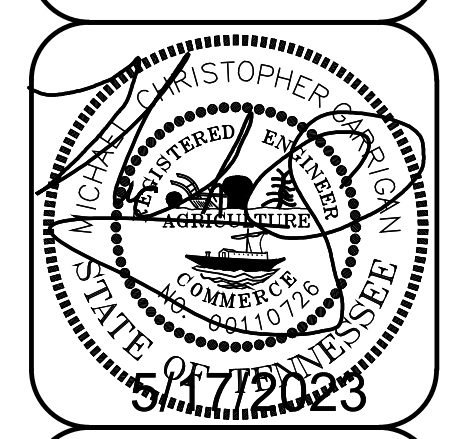
Line Table

LINE	BEARING	DISTANCE
L1	N 67°54'46" E	151.80'
L2	N 60°24'47" E	85.21'
L3	N 67°54'46" E	154.12'
L4	N 60°24'47" E	85.80'

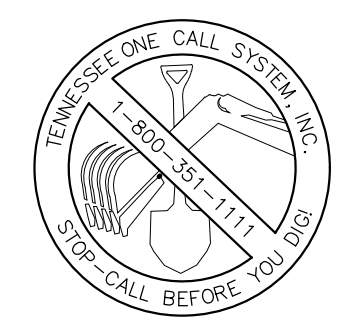
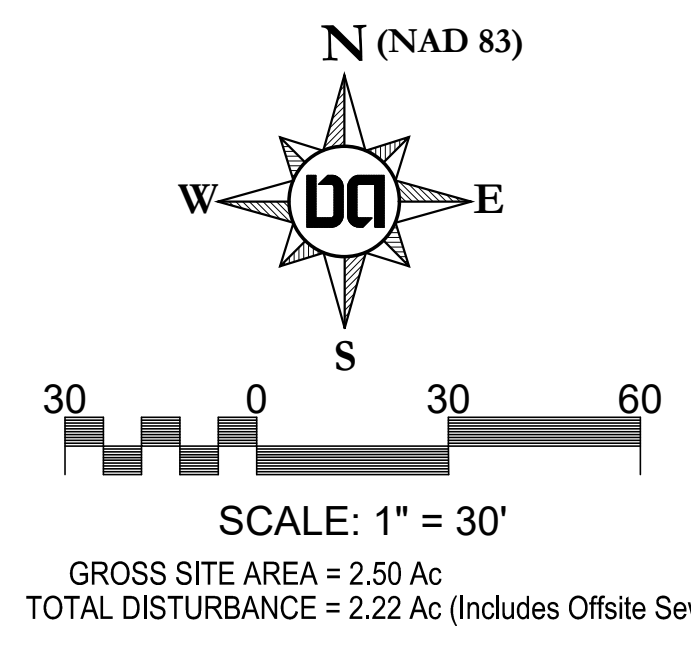
Curve Table

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	176.50'	996.93'	10°08'38"	N 55°20'27" E	176.27'
C2	173.32'	1005.93'	9°52'20"	N 55°28'37" E	173.11'

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Map 161 Parcel 90.07
Nashville, Davidson County, Tennessee



Existing Conditions Plan



PERMITS:

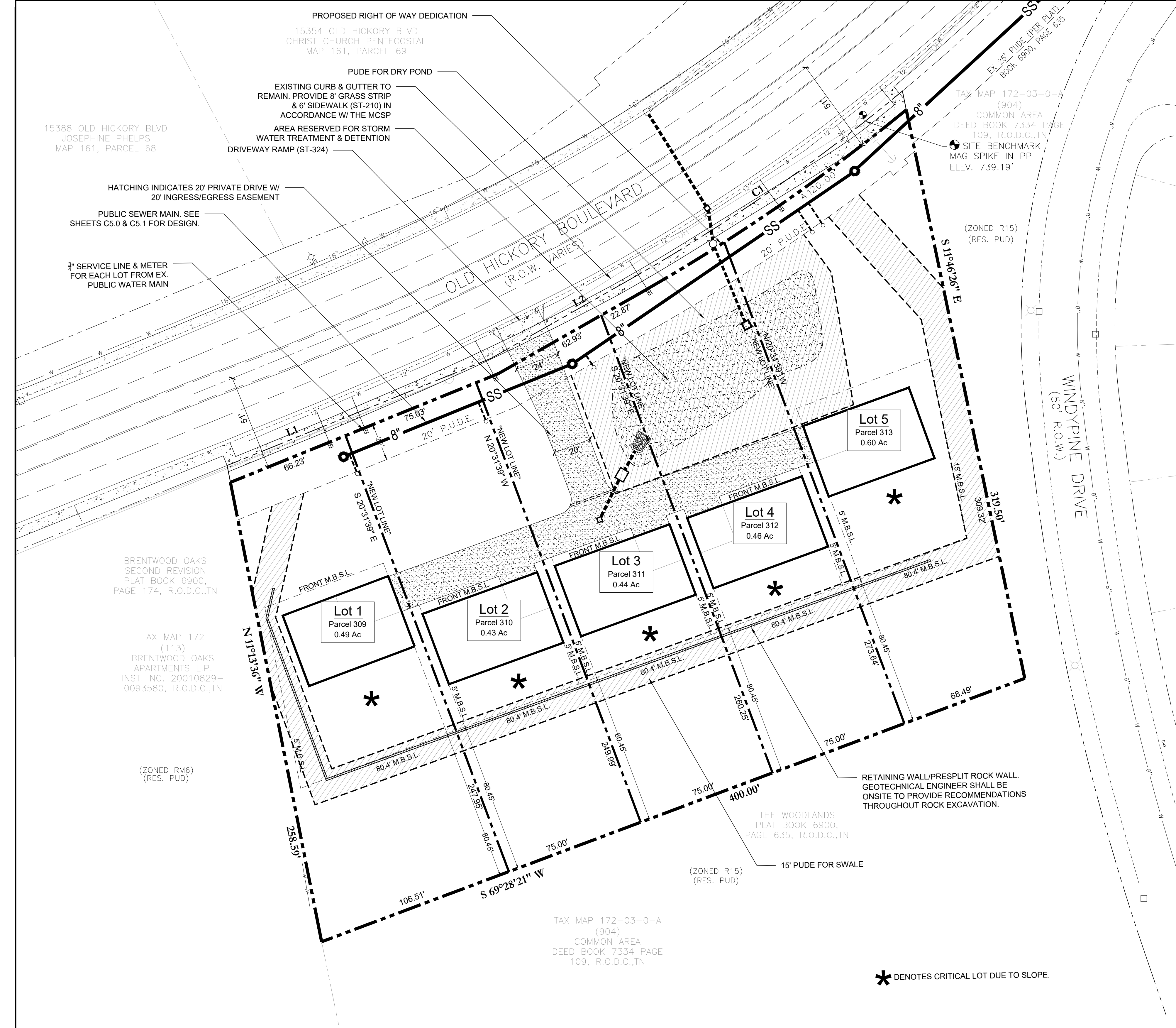
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C1.0



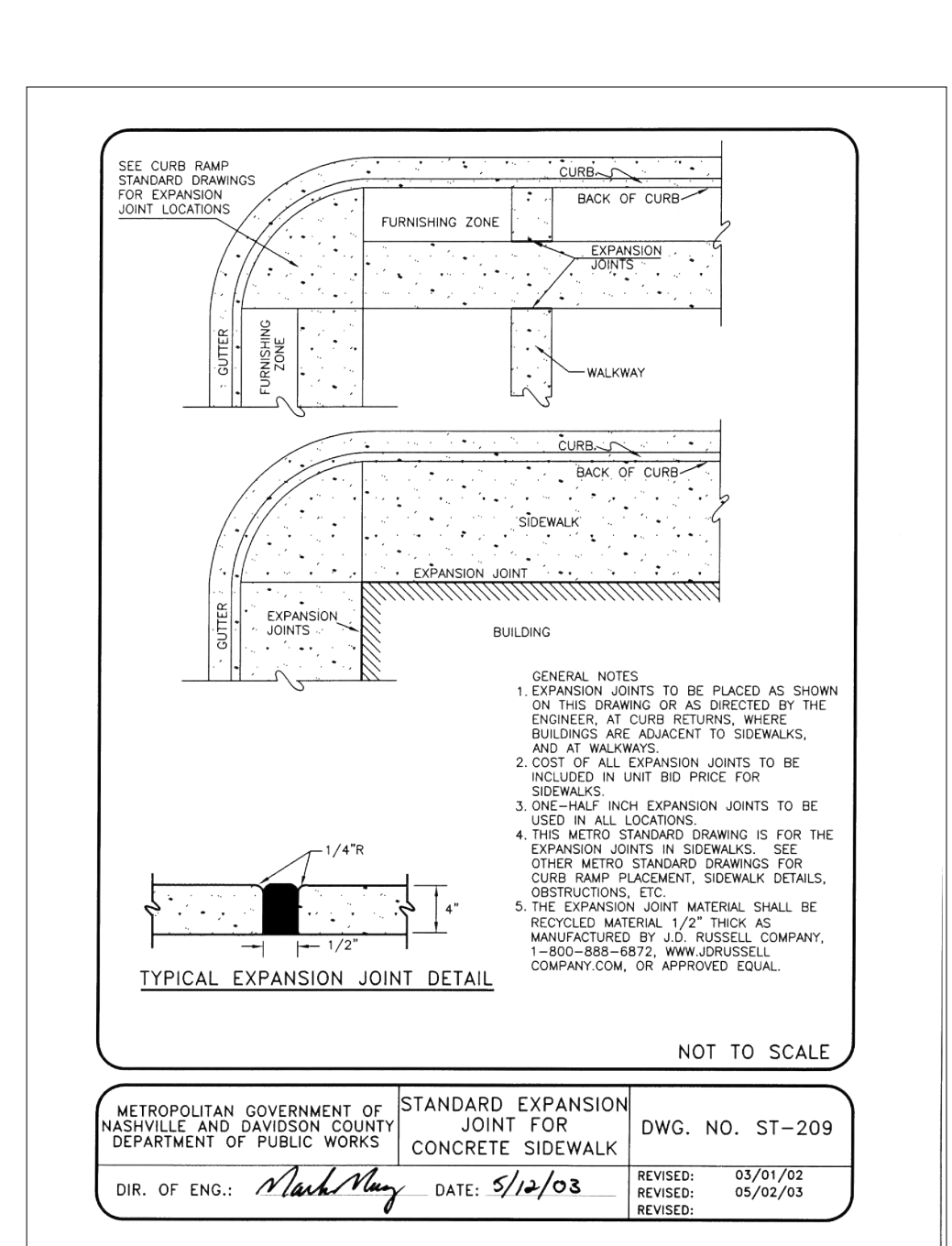
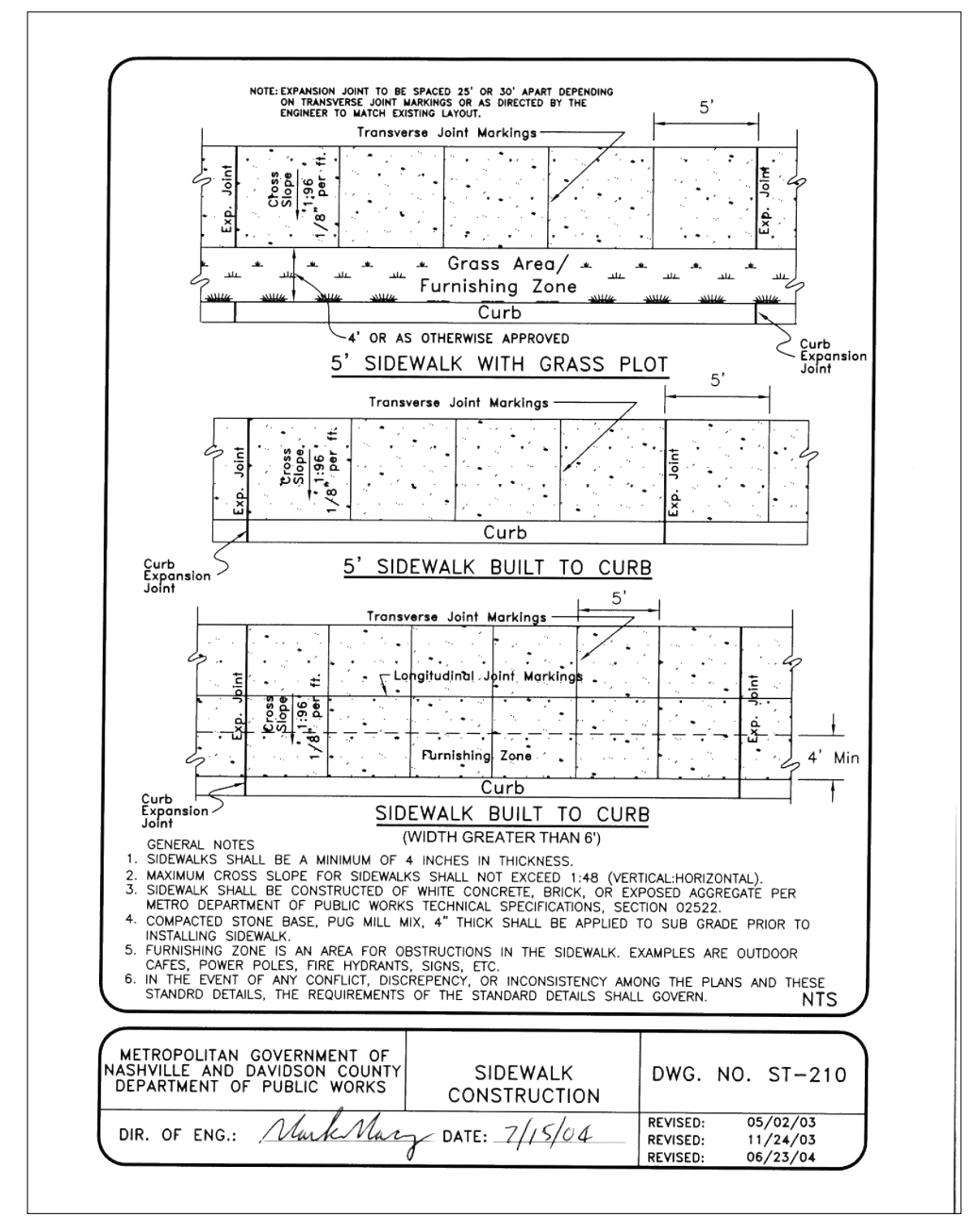
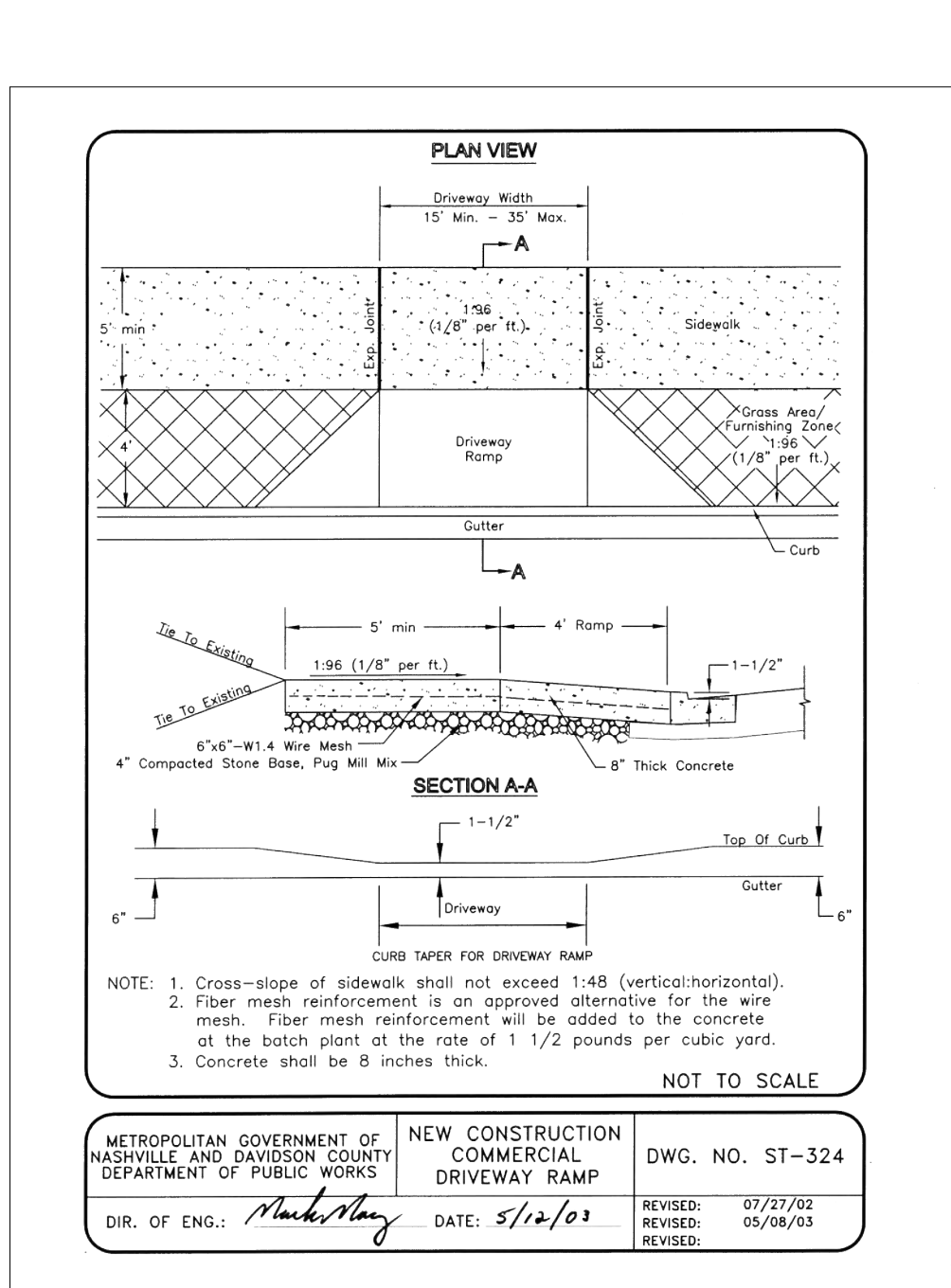
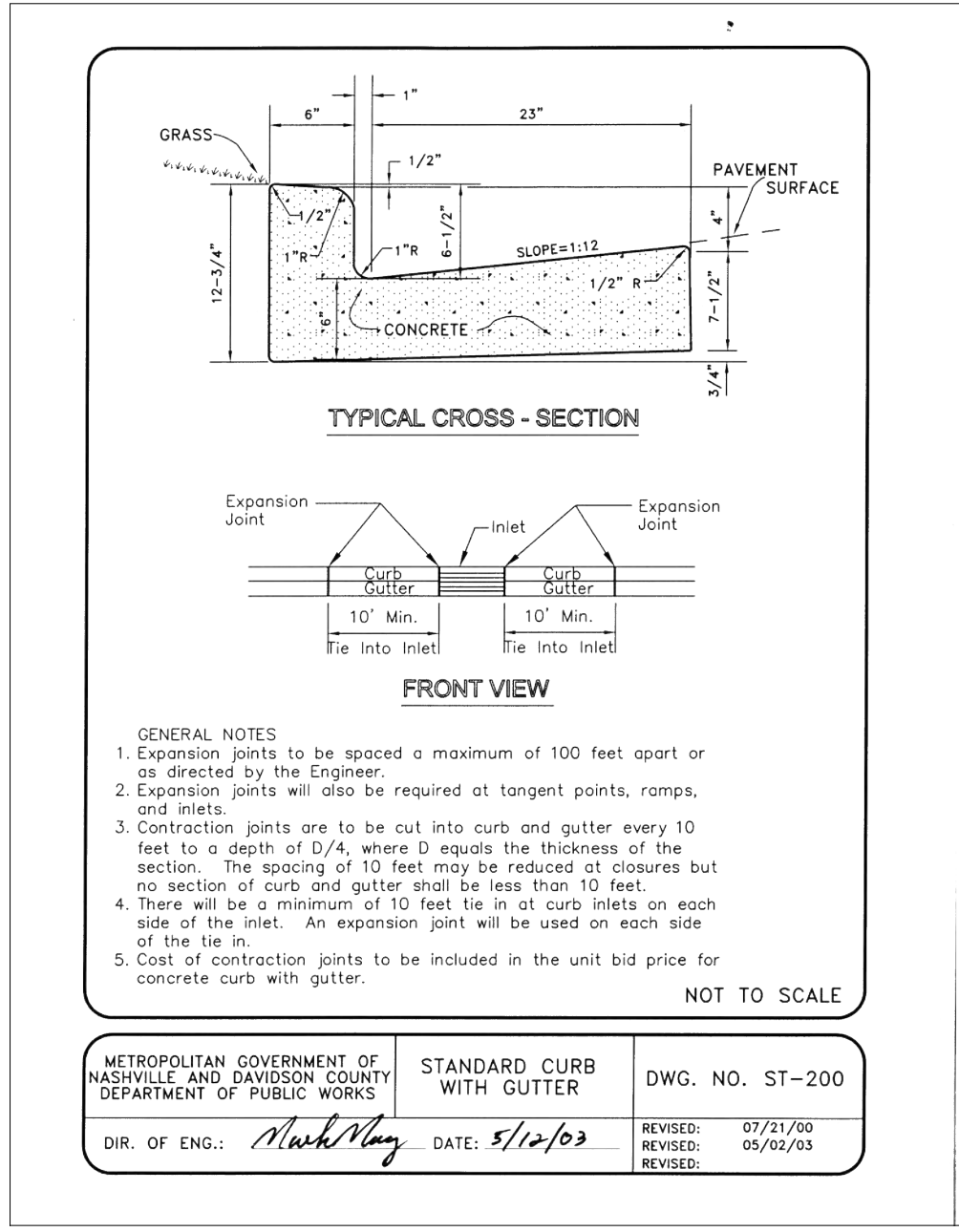
Note:
No proposed Duplex Lots.

LOT #	Sq Ft
1	21,316
2	18,672
3	19,081
4	19,991
5	26,136

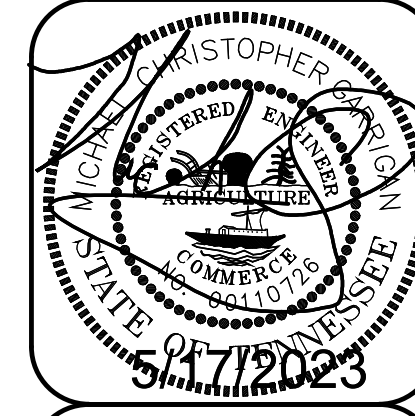
- Public Works Notes**
- All work within the public right of way requires an excavation permit from the department of public works.
 - Proof-rolling of all street subgrades is required in the presence of the NDOT public works inspector. Inspection of the binder course is required prior to final paving in the presence of the public works inspector. These requests are to be made 24 hours in advance.
 - Stop signs are to be 30 inch by 30 inch.
 - Street name signs to have six inch white letters on a nine inch green aluminum blade, and be mounted vertically staggered.
 - Street name signs shall be assembled using extruded sign blades.
 - All signs to have 3M reflective coating.

Drawing Date:
December 2022

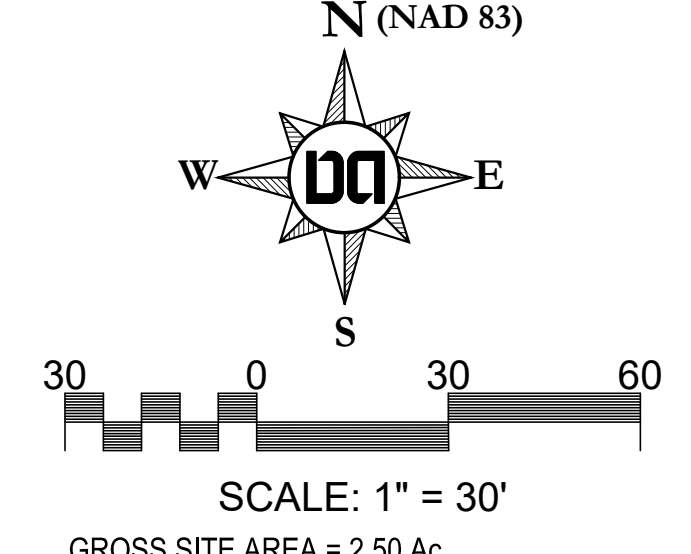
Revisions



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Layout and Utility Plan



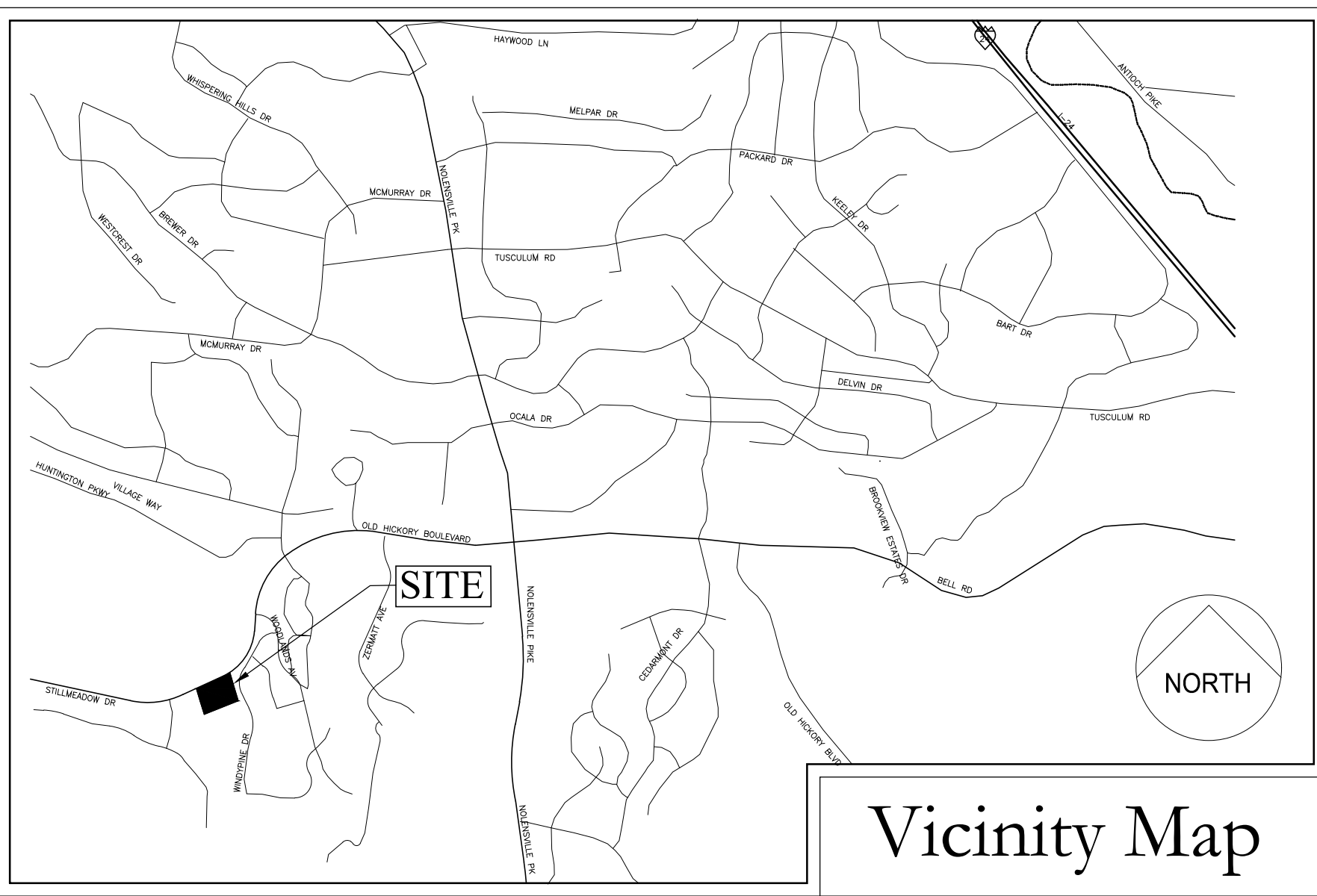
GROSS SITE AREA = 2.50 Ac
TOTAL DISTURBANCE = 2.22 Ac (Includes Offsite Sewer)

PERMITS:

Case No.	2022S-151-002
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MWS	23-SL-0008 (2023001753)

Dale & Associates
Civil Engineering & Land Planning & Zoning Surveying
516 Hickory Place
Nashville, TN 37203
(615) 259-5166

D&A Project #20162
0 Old Hickory Boulevard
C2.0



SMH ONE
Station 1+61
TC Elev 706.00
INV In 697.26
INV Out 697.06

SMH TWO
Station 4+00
TC Elev 728.48
INV In 717.70
INV Out 717.50

SMH THREE
Station 5+68
TC Elev 741.00
INV In 732.13
INV Out 731.93

3/4" Water Service & Meter (One Per Lot)

SMH FOUR
Station 7+48
TC Elev 743.00
INV In 736.88
INV Out 736.68

6" Sewer Service w/
Cleanout (1.0% Min Slope)

6" Sewer Service w/
Cleanout (1.0% Min Slope)

Sewer Service (Lot 4)
Private Service to be
Recorded on Final Plat

EXISTING SMH
Station 0+00
TC Elev 691.99
INV In 684.86
INV Out 684.66

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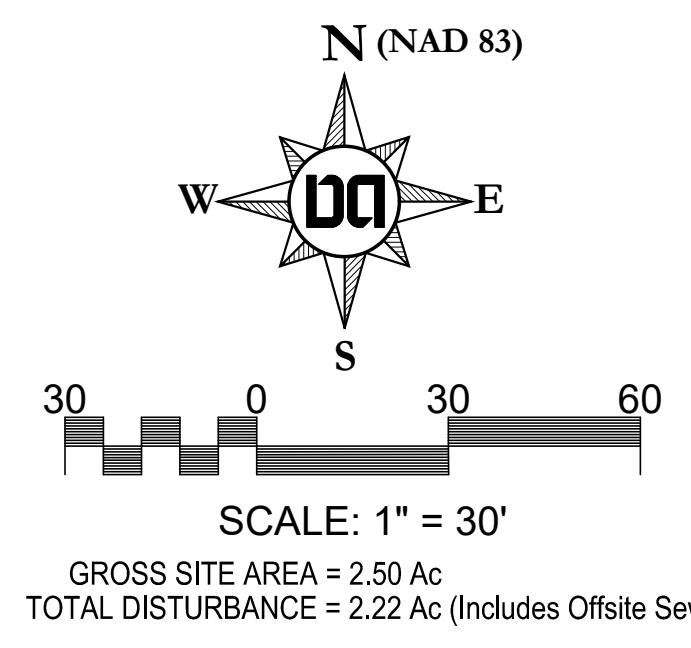
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MWS Standard Private Utility Plan Notes

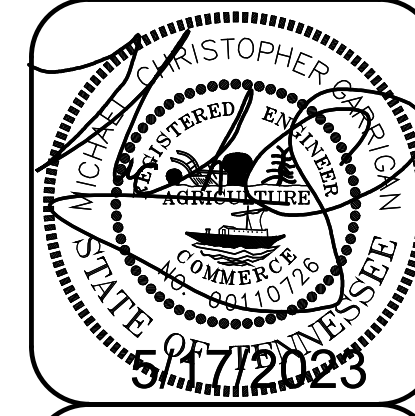
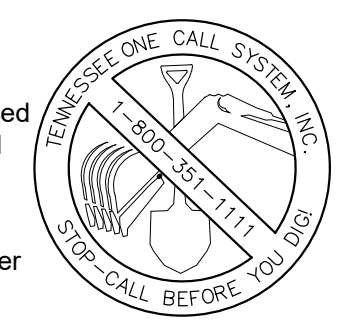
- All water and sewer construction shall be in accordance with specifications and standard details of the Metro Water Services.
- All connections to existing manholes shall be by coring and resilient connector method.
- Vertical Double Check Valve Assemblies, that are located in interior rooms, can only be used for fire services.
- All water meters shall be a minimum of 24" not to exceed a maximum of 28" below finished grade.
- Irrigation line shall be copper from the meter to the backflow preventer.
- The minimum fees outlined in the capacity letter must be paid before commercial construction plans can be reviewed.
- All sewer services shall be minimum 6 inches in diameter, from connection at the main until the fire clean out assembly.
- Backflow device to remain accessible at all times.
- Plan size shall be 24" x 36" and shall show contours around meter boxes.
- Any unused existing water meters must be cut and capped at the public main.
- All lead or galvanized water service lines encountered with the project shall be reinstated with copper of like size from the water main to the meter box.
- Domestic and irrigation water meters and associated appurtenances shall be placed in or under a paved or improved surface other than the portion of the service located within the right of way.
- Sanitary sewer taps shall be placed at the lowest adjacent sewer main elevation for each premises and shall not be located in or under a paved or improved surface other than the portion within the right of way.

Water and Sewer Notes:

- All water and sewer construction shall be in accordance with specifications and standard details of the Metro Water Services.
- The contractor is responsible for reimbursing the Metro Water Services the cost of inspection.
- The contractor is to provide and maintain the construction identification sign for private development approved.
- After completion of the sanitary sewer, the developer is responsible for the televising of the lines prior to final acceptance. The videotaping must be coordinated with the Metro Water Services Inspection Section. All costs will be borne by the developer.
- All connections to existing manholes shall be by coring and resilient connector method.
- Reduced Pressure Backflow Prevention Devices (RPBP) or dual check valve will be required on all test and fill lines (jumper) needed for water main construction and must be approved by the Metro Water Services.
- All water meters shall be a minimum of 24" not to exceed a maximum of 28" below finished grade.
- Upon completion of construction of water and/or sewer, the engineer shall provide the department with a complete set of as-built plans in digital (DWG & PDF) format. All drawings must be completed and submitted prior to acceptance of the sewers or water mains into the public system and any connections being made. (A) Sewer plans shall be sealed by a license professional engineer and/or a registered land surveyor and shall include actual field angles between lines, all actual service lines and tee locations, the distance of the end of the service to property corners and lines and/or stationing and offset from sewer centerline to end of service line, the depth to the top of the end of the service line, and shall reflect all alignment and grade changes. (B) Water line plans shall be sealed by a Licensed Professional Engineer and/or a Registered Land Surveyor and shall include offset distance from the roadway centerline, or property line right of way, line depth, location of hydrants, valves, reducers, tees and pressure reducing devices where applicable.
- Pressure regulating devices will be required on the customer side of the meter when pressures exceed 100 psi.
- Pressure regulating devices will be required on the street side of the meter when pressures exceed 150 psi.
- All water mains must be located within the paved areas including all blow-off assemblies.
- All lead or galvanized water service lines encountered with this project shall be reinstated with copper of like size from the water main to the meter box.
- Domestic and irrigation water meters and associated appurtenance shall not be placed in or under a paved or improved surface other than the portion of the service located within the right of way.
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Offsite Public
Sewer
Extention

Dale DA & Associates
Civil Engineering
Land Planning & Zoning
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C5.0

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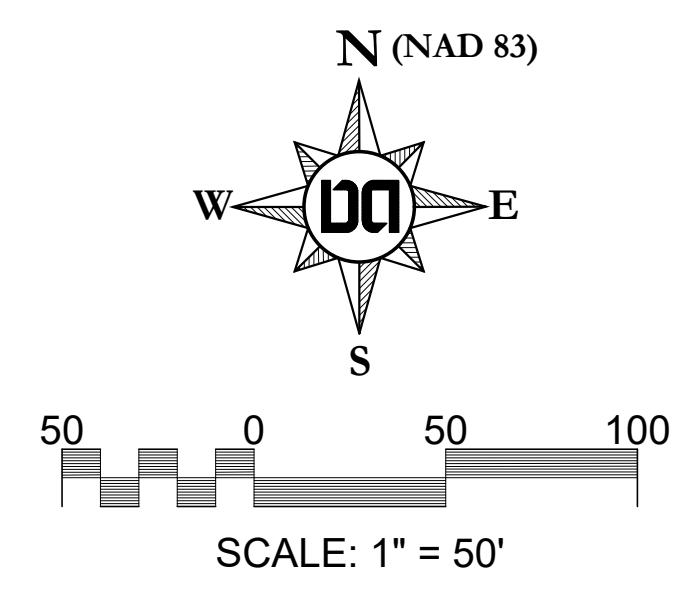
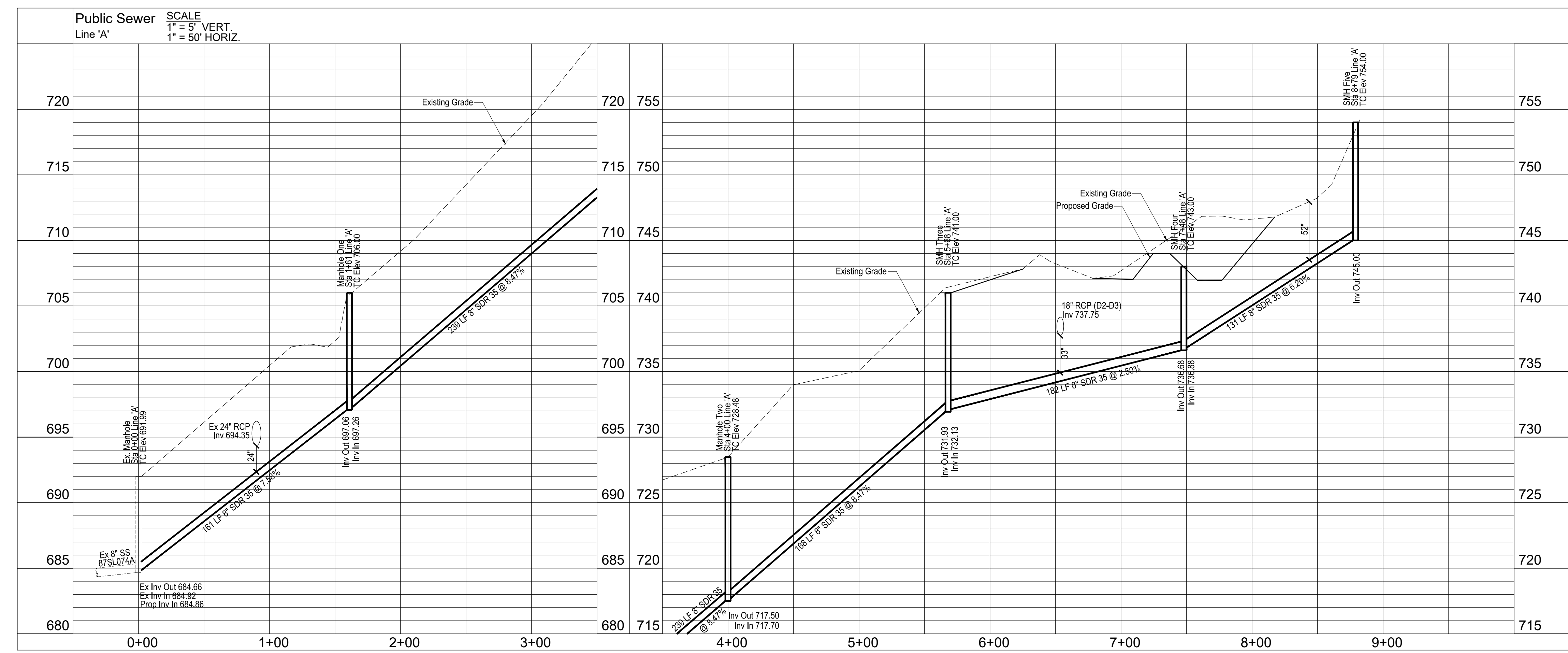
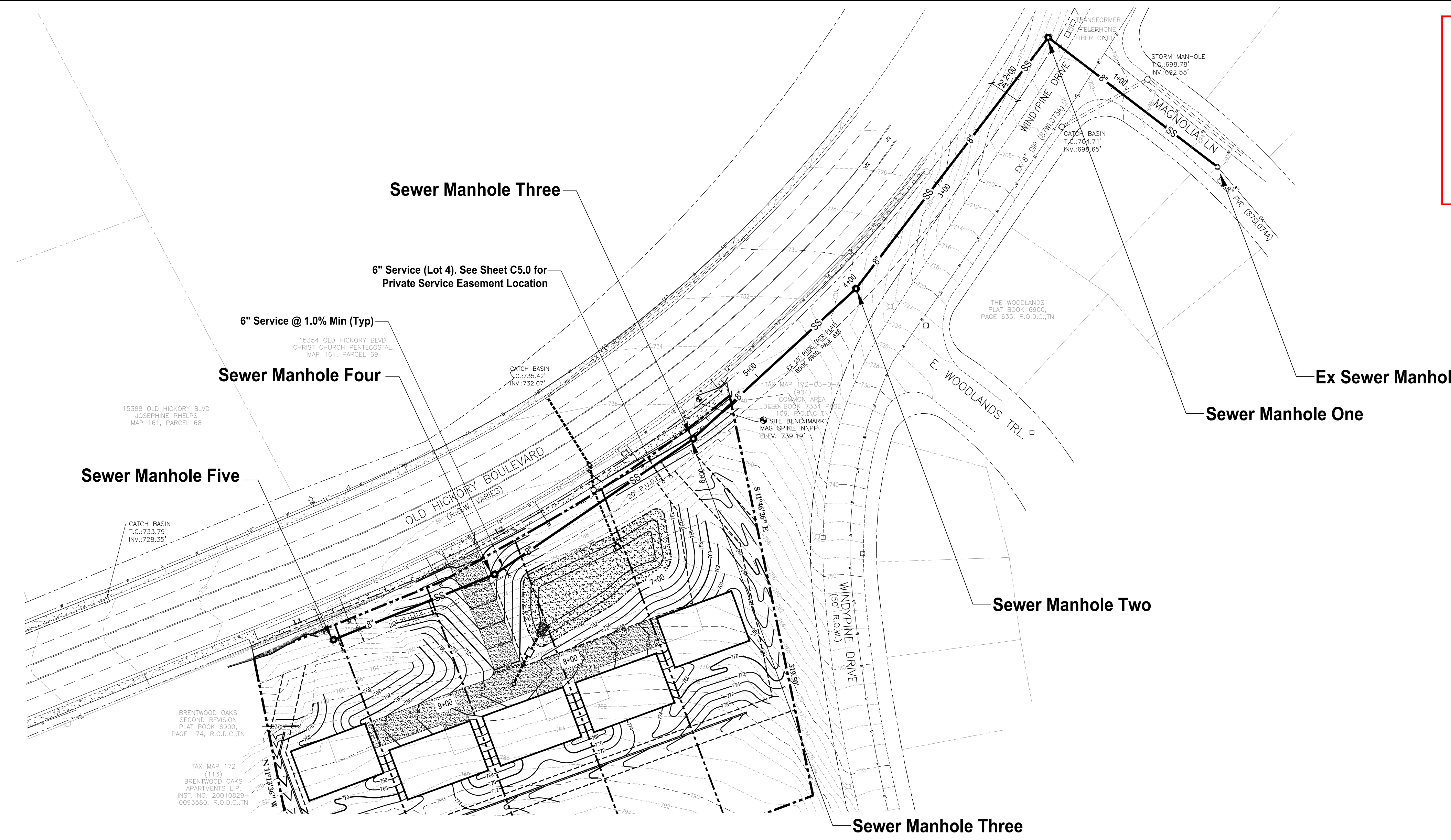
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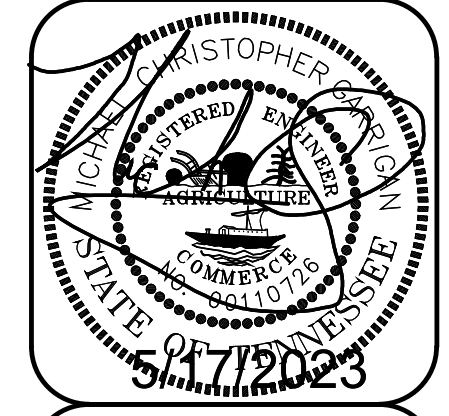
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- The contractor is to provide and maintain the construction identification sign for private development approved.
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MWS Standard Private Utility Plan Notes

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Public Sewer Plan & Profile

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C5.1